



Comparisons Between the 1997 CFS and Earlier National Commodity Flow Surveys

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Presentation Focus

- Key features of the 1977 Commodity Transportation Survey (CTS) versus the 1997 Commodity Flow Survey (CFS)
- Industry versus commodity classifications
- Industry coverage and specialization
- Trends in commodity-level mode shares
- Trends in commodity-level small-package shipments

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Comparing the Surveys: 1977 CTS Versus 1997 CFS

	1977 CTS	1997 CFS
Industry coverage	Manufacturing only (SIC20-39)	Mining, manufacturing, wholesale trade, catalogue/mail-order (SIC10-39, 50, 51 & 596)
Sample	19,500 establishments	102,739 establishments
Sampling rate	30-120 shipments per establishment, (varied w/employment)	20-40 shipments per wk per establishment for 4 reporting weeks
Transport modes	Rail, air, motor carrier, private truck, water, pipeline, parcel delivery	Same + multiple modes

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Comparing the Surveys: 1977 CTS Versus 1997 CFS (cont.)

	1977 CTS	1997 CFS
Modal classification	MAJOR means of transport (greatest distance)	Specific single or combination of modes
Shipment distance	Circuitry factors x straight-line mileage between PICADAD O-D coordinates	Sum of minimum modal paths between O-D zip code centroids on ORNL modal networks
Classification system	SIC for establishments (primary activity) STCC for major commodity	SCTG for major commodity in shipment
Availability	Microfiche	CD-ROM

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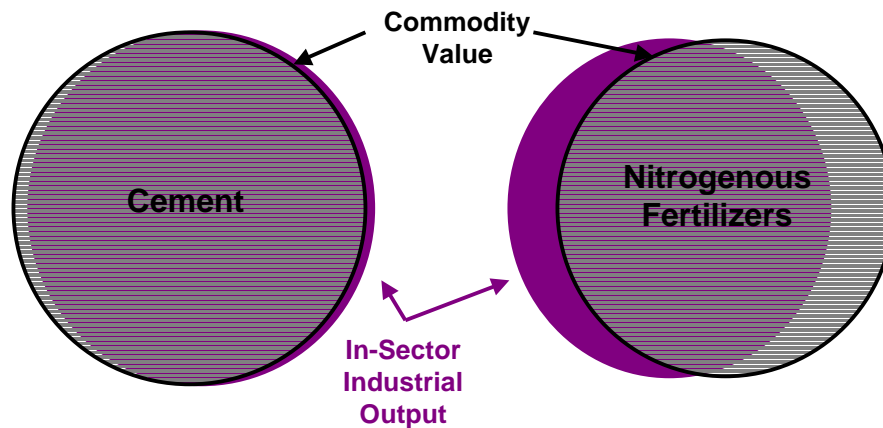
Standard Transportation Commodity Classifications Versus Standard Classifications of Transported Goods

- “Old economy” versus “new economy” focus (OK for rail shipments, increasingly limited value for truck and air shipments)
- Better link to industry classifications and output measures (historical and forecast)
- Permit time-series comparisons
- STCC-SCTG “Bridge” file

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Industry Classification: Differences in Specialization and Coverage



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SCTG - STCC Mapping Procedure

SCTG 53	Meat: fresh, frozen (201) Canned fruit, vegs, seafood (203) Misc prepared food (209)	} STCC 20
SCTG 64	Canned fruit, vegs, seafood (203) Bakery products (205) Misc prepared food (209)	
SCTG 72	Canned fruit, vegs, seafood (203) Confectionery (207) Beverages & flavorings (208) Misc prepared food (209)	
Etc.	(201-209)	

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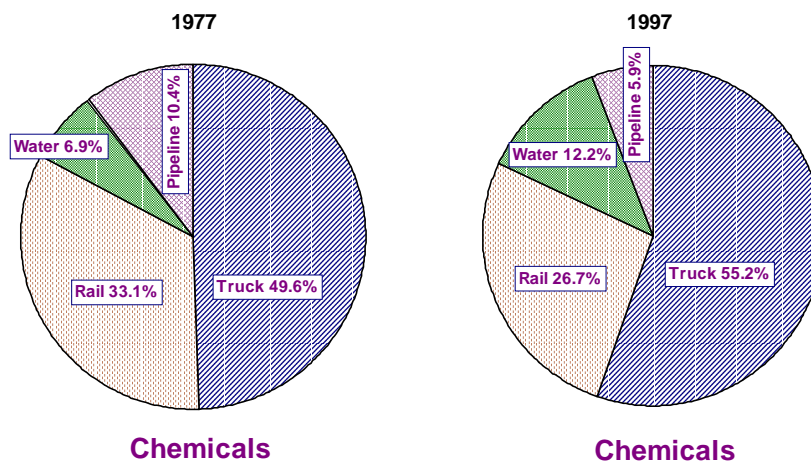
Industrial Sectors Examined

- Agriculture
- Mining
- Food
- Paper
- Chemicals
- Petroleum Refining
- Stone, Clay & Glass
- Primary Metals
- Metal Durables
- Misc. Manufactures

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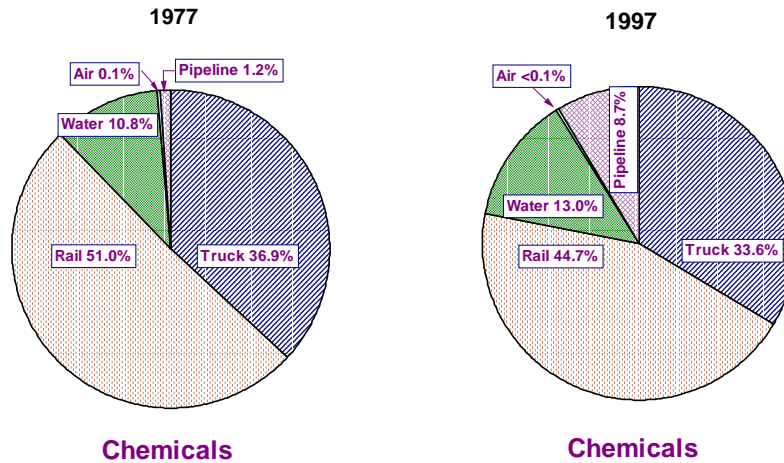
For the Chemicals Sector, the Truck Share of Tonnage Rose



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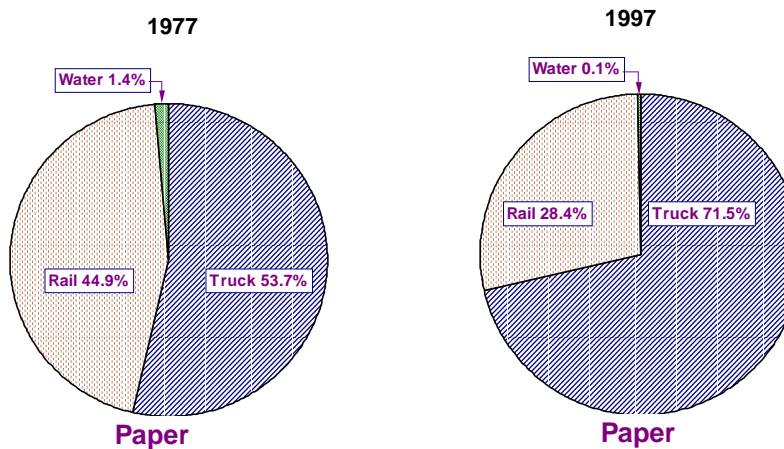
But Ton-Mile Shares Dropped as Water, Pipeline and Rail Captured Longer Hauls



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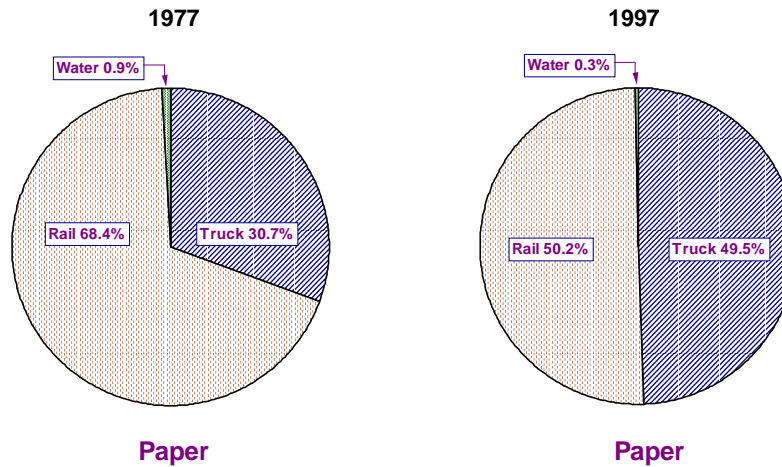
Trucks Increasingly Dominate Tonnage from the Paper Sector



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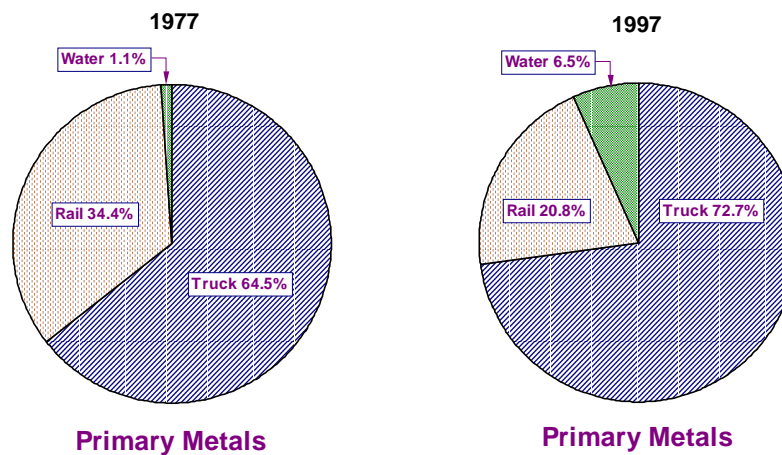
But Rail Still Moves Half the Ton-Miles



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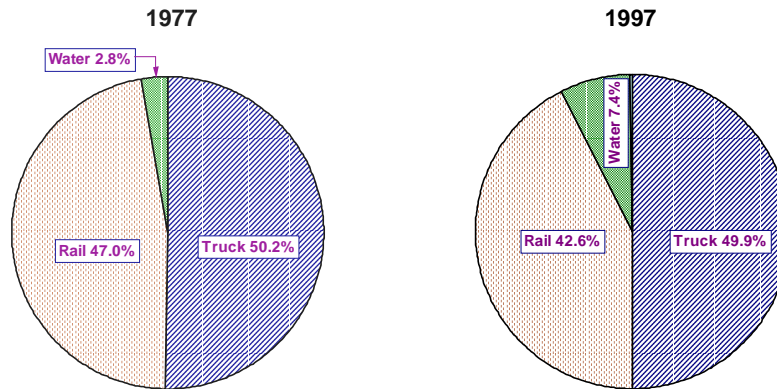
Trucks Also Dominate Tons Shipped from the Primary Metals Sector



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But Rail and (Especially) Water Continue to Capture Longer Hauls



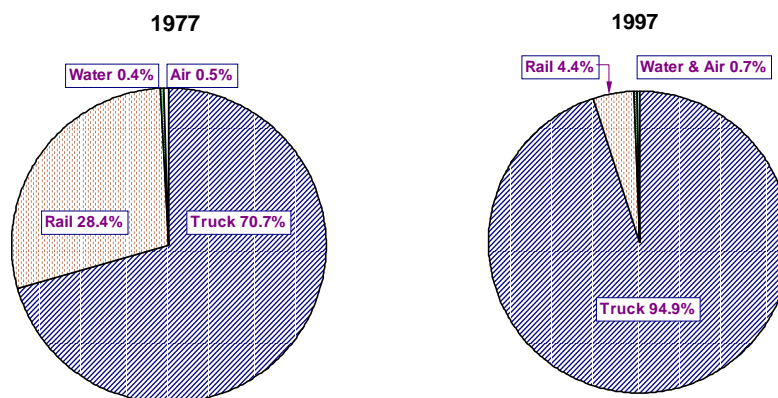
Primary Metals

Primary Metals

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Trucks Move 95 Percent of Metal Durables Tonnage



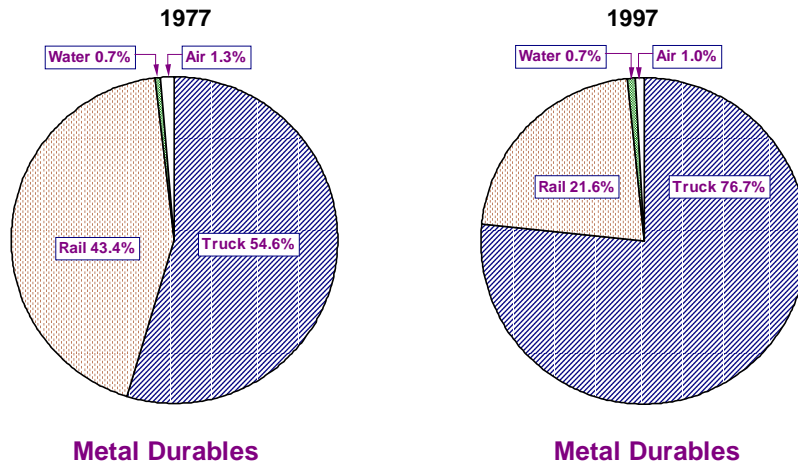
Metal Durables

Metal Durables

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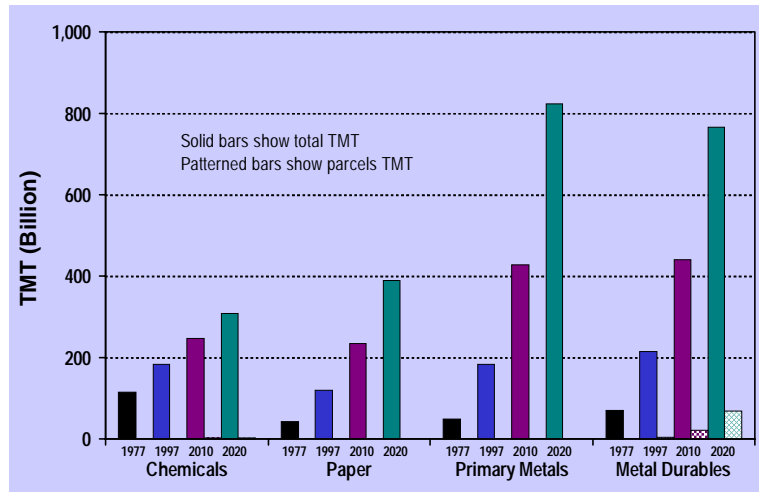
And Account for More Than Three-Quarters of the Ton-Miles



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Small-Package Shipments Are a Fast-Growing Part of TMT in Selected Sectors



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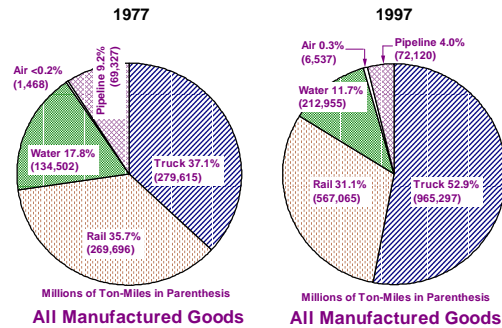
Freight Mode Shares Have Not Stabilized: Trucks Continue to Gain Freight Traffic

❖ 1977 CTS and 1997 CFS data were used to investigate trends in freight movement

❖ For consistently-defined sectors, truck shares rose substantially, especially when average length-of-haul dropped

❖ Largest shifts occurred in highly-processed commodities like metal durables

❖ Key exception was chemicals. Hazardous materials are less likely to be shipped by truck



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